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ABSTRACT

The manual provides teachers with not only educational outdoor activities, but also with activities that can be provided on an individual level. The only equipment needed for most of these activities is a bought or homemade "baggage tag". These tags are used for a variety of purposes such as plant and animal identification, nature quiz games, and rockhunts. One of the best attributes of this method is that students can make up their own activities. In addition to general learning activities, the baggage tags can be used as a review or test. Suggested activities are grouped by subject area and level of difficulty. These are arbitrary, however, since any of them can be graded up or down to suit the students involved. There are 25 activities given for science; 15 for language arts; 10 for social studies; and 10 for math. (KM)

baggage tags for learning

out of doors

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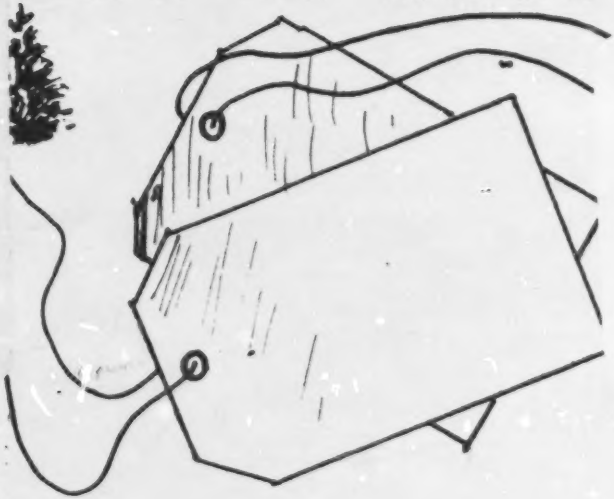

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Environmental-Outdoor Education

Nashville-Davidson County [Tennessee]
Metropolitan Public Schools

1974

BAGGAGE TAGS FOR LEARNING

Out of Doors

Introduction

Today, more than ever, in Education, there is a need to involve each student in learning activities. Not only should he be involved, but the activity needs to be on an individual basis in order for there to be real and sustained learnings.

Teachers have always found that educational games were one method of enriching the existing curriculum and making learning more of a pleasure for children. The purpose of this manual is to provide teachers with not only educational activities, but activities that can be provided on an individual level. In addition, these activities can be done out of doors-a natural learning area for all children. The only equipment needed for most of these activities is a bought or home-made "baggage tag". These can be laminated to make them last longer. One of the best attributes of this method is that students can, themselves, make up a number of activities. It is a well known fact that we often learn more by "making up a test" than by taking it.

In addition to general learning activities, these baggage tags can be used as a review or test of learned facts in many areas of science, language arts, or math.

One of the great discoveries a child can make, one of his great surprises, is to find he can do what he was afraid he couldn't do. Many of the students, in our classrooms today, are unable to keep pace with their fellow students. Many of them lack the necessary skills of reading, writing, and basic math. Because of this, they may become problems or merely stop trying to learn. The use of individualized activities, in a proper setting, can minimize the student's feeling of inadequacy; and at the same time, provide him with some of the basic skills needed to hold his own in the classroom.

Self-confidence means faith in oneself and in your own powers and abilities. This can come only from success, an element not always found in the classroom. In using these learning activities, each child should be considered at their own level; but at the same time, care must be taken so that no child feels that he is doing "first grade" work. By allowing each student to participate and to provide activities for other children, these out of doors "baggage tag" activities can help each student to better learn many needed concepts.

The "baggage tag" activities are grouped by subject area, and by level of difficulty. These are arbitary, however, as any of the activities can be either up or down graded to suit the student's level. Many other ideas for using baggage tags will occur as you begin to use this "gadget" in your work. There are endless possibilities for the use of the teacher and student.

SCIENCE ACTIVITIES

One of the most important areas of teaching should be to stimulate curiosity. This whole issue is one that is not dealt with often enough in our schools. Too many teach only to satisfy student curiosity rather than to foster it. This important basic human characteristic should be protected, stimulated and nurtured. By the use of questions, curiosity can become a part of everyday learnings, dealing with interesting subjectsand enough knowledge to give the student a taste of the excitement of discovery. Most children enjoy the out of doors. It is difficult to make room for the large amount of "nature" items they will bring into the classroom. The following "baggage tag" activities are just a sampling of many that can be done in the area of science.

I. "INSTANT" NATURE TRAIL (can be done at any level-but better from 4 up)

This activity should be done over a period of several sessions. The teacher should first take the class on a walk around the school site, or in a nearby vacant lot (obtain permission from the owner). The class should discuss, with the teacher, the many habitats, types of plants, animals, and all of the things seen on the walk. On the second walk the teacher should give each child a tag that tells about something they saw on the first walk. The children should be instructed that as the class gets to the spot where their tag should be put-to call out and raise their hand. The student should then read out what is on the tag and tie it where it belongs along the "trail". If the teacher knows a tag belongs in a certain spot, and no one stops the

group, she can stop at the spot and ask if anyone has a card that might belong in this spot. When the walk is finished and there are cards left over, the student can read what is on the card and then ask the group where it might have been placed along the trail. If a card could be put in several places along the trail try to get the students to space the cards out, rather than bunch them in one place. This can be done by suggesting to a student, "You are right, it can go here but lets see if we can find another place further up the trail". Group discussion can go on at each spot along the "trail" and new ideas and facts added to those on the tag. At the end of the walk the tags can be gathered up and returned to the classroom. They can be made permanent by laminating or dipping them in wax.

On the third session the teacher can take the now permanent tags and redistribute them to the students, being careful to make sure each child gets a different card from the trip before. The class can then repeat the walk but this time the cards can be left in place for other classes to enjoy.

Ideas for some of the cards might be-- "This is a home for a social insect. Where does he live?" "This a habitat-a place where an animal can find food, water and shelter." "This plant is really two plants, working together as a team". One way to use the tags is to not identify any plants or animals on the tags. If the children are interested, you can end each tag with a question. The children can look up the answers and put them on the back of the tag. It is better to stress why and not what on a trail of this type. This "trail" can be made into a permanent one by the addition

of stations and a trail booklet. New cards can be added as the season changes.

2. TAG QUIZ GAME (any age level)

This game can be used as a test or merely a review of science facts. It can be done by one group of students for another group. The game involves a "magic" number. Tags are tied to trees, bushes, etc. with two possible answers on them--each answer has a number value. The student reads the question and selects the right answer and puts the correct number on his work sheet. If each tag is numbered the students would not have to view the tags in order, just to make sure they put their selected number beside the number of the tag on their paper. Suggested tags--"If a tree has a simple leaf, take 5 points; if it has a compound leaf, take 3 points." "If this is a Hickory, take 1 point; if it is an Ash, take 3 points." "If the root of this plant was eaten by the pioneers, take 7 points; if it cannot be eaten, take 5 points." It is usually better to use odd numbers so that no student could get the "magic number" without getting all the answers correct. At the end of the game the teacher can find out the total score of each student and then give the "magic number" (the correct answers totaled). The class, as a whole, should then go to each tag and discuss the correct answer so the students would know what they had missed.

With younger children this can be made simpler. The group could go, as a group, to each tag and the teacher could read what was on the tag. Instead of having the children put down the number of the right answer they can be asked to drew either a circle or a square on their paper. "If an insect could

live here, draw a circle; if it is too wet for an insect, draw a square." As with the other group, the class should have a group discussion after the game at each tag.

3. MATCHING (any age, but better with younger children)

This activity can be done in several ways. The concept involved here is that of likes and differences in Nature. Leaves from school yard trees can be taped or laminated to the tags. Each child would be given a leaf tag and asked to tie it on the tree that had the same type of leaf. The name of the tree could be put on the back of the tag and the student asked to match his card with the tag identifying a certain tree. A part of a plant on on tree could be labled and identical tags given to the students. They would then match their tag to the identifying tag on the plant or tree. Parts such as "simple leaf" could be put on the tag and the student would have to match his tag to one on a tree.

This could be followed up by an activity where there would be no identifying tag on the plant or tree and the student would have to locate the correct part by himself.

4. MATCHING "Fingerprints" or "rubbings"

A fingerprint (bark rubbing) can be taken of a tree and part of the print left on the tree, part put on a tag. The students would then match the "fingerprint" on their card with the rubbing on the tree.

5. THE SENSES (any age)

This can be either a science or language arts activity. Each student would be given a tag with a sense discriptive phrase on it. He would then try to tie the tag to something that could be described with that term i.e.---Fuzzy, Dark green, Smells sweet, Smooth etc. Older children can be given more difficult discriptions with several adjectives on it. Small, rough, etc.

6. COLOR MATCHING (any age)

A tag with a small square of color can be given each student. He should then find something in nature that matches that color (this is good with shades of bark when teaching trees).

7. EATING HABITS (any age)

Glue either pictures of things eaten by animals (birds, insects) on the tags, or animals that eat other things. Each student will then tie his tag either to something that eats what is on his tag or something that is eaten by the object on the tag.

8. WEATHER (fourth grade up)

Put a temperature reading on a tag. Each student or group of students should have a thermometer. They take the tag and using the thermometer, try to find a spot on the school yard that will register the temperature on the card. Soil thermometer can also be used. Ballons with a long string can also be used to register the temperature above the ground. The students will usually have to try a number of places before they can find an area that is the exact temperature as that on the card.

9. SNOW AND COLOR

Colored baggage tags are needed for this activity. A group of different color tags should be placed on a flat snow surface and left for 15 minutes. The students should then measure how far down into the snow the tag has melted. This should be done on both sunny day and a cloudy one; and both the different colors and the same colors for the two days should be compared.

10. TWENTY QUESTIONS - SCIENCE (can be used for any grade-make the questions and answers appropriate)

Tags of different colored cardboard would be needed for this activity. Each color represents a different "area". I.e., orange - flowers, green - trees, red - insects. The child would select the area he is most interested in. Either the statements or questions, or the answers would be put on the appropriate object on the school yard. The student would then be given the other part. He would then have to find the other half of his card (either question or answer) and tie it beside the right tag. The group should then go around and read both the question and answer.

This game could also be used in connection with Social Studies. How Indians and pioneers used the land, i.e.- What tree was used to make tool handles? Answer - Hickory (this should be put on the correct tree.

11. LABELING PARTS

As the students learn the parts of a flower or trees, they can be given a card with one part on it. They should then tie the tag to that part of the plant. With

younger students, this can be such simple parts as trunk, root, limb, twig, etc. For the older students the more complex parts of the flowers should be used.

12. CHANGE OR NATURAL (building materials)

Tags should be made with either changed or natural on them. Each student is given one or the other. They must then go out on the school yard and find something on the site or on the building that fits their tag. By change-this should mean something added, or a mixture (not paint) such as a concrete, steel, etc. After the tags have been put out, the class should go to each one. Have the student explain why he put it there and if a change has been made, what the change was and why it was made. This is a good activity to be done in conjunction with Social Studies - the city, or materials for building.

13. HABITATS (any grade level)

Each child is given a tag with a direction on it. The tag may also have a picture on it that refers to the direction; i.e., a picture of a spider. Statement - Find a place where this animal might find food.-or- Find a plant that gives food for birds. After all of the tags are put out, the group should go to each tag. The child who had the tag should read it and explain why he put it at that spot.

14. FOOD CHAIN

Extra equipment: short lengths of rope.

Each child is given a tag with either a picture or a name of part of a food chain. These can be food chains of field, school yard, stream, forest or anything that has been studied by the students. They are then to get together in groups amd make up a food chain. They can tie their tags to the length of rope to form as long a food chain as possible. After each food chain is tied to a rope the group will gather in a central place and read their food chain to the rest of the group. They must identify what type of food chain they have made (stream, etc.)

15. FIND THE TREES (5-6)

This activity can be done in groups of students rather than by a single student. Each student is given a tag with a picture of part of a tree on it. (Take from Golden Guide) The students try to find the tree that has a part simular to the picture on the tag. There can be pictures of the fruit (in season), flower (in season), bud, bark, leaf, and shape. After each student has found their tree, all of the parts can be put together and the group can then look up the tree in the Golden Guide. Approach this as clues to a mystery.

16. CURIO COLLECTOR (5-6)

(A survey must be done by the teacher before doing this activity.)

Each student has a tag with an object to be found on the site; i.e., a tree struck by lightning, tree growing around wire,

fossil (animal graveyard), rock shaped like a head, nest with a piece of string in it, tree with opposite leaves and limbs, plant growing in a crack, etc.

After each tag has been put out, the group should go to each one, discuss how it happened, etc.

17. TRAVELING SEEDS (3-6)

Extra material needed: small squares of contact clear paper, small sticks or tooth picks; different colors for each type of seed travel.

Each student would have a tag with a method of seed travel on it; fly, hitch-hike, float, pop, etc. If there are not too many types of seeds available on the school site or nearby vacant lot, you might want to put the class into groups. The child or group would locate a plant that had seeds that traveled in the way indicated on the card. Tie the card to the plant. Use the clear contact and tape one of the seeds onto the card. Locate as many plants of the same type tagged as can be found nearby (you may want to set the radius). Put a stick beside each plant of the same kind. The class can then see how many plants "might" have come from each of the types of traveling plants. And how many types of plants there were for each type of seed travel. An interesting sidelight might be to also find out how many seeds there are on each plant - at least one of each kind of seed travel. Take one of each of the plants back inside the classroom. Put a piece of clear tape, sticky side up, on a desk. Carefully pick off each seed, one at a time, and stick it on the tape. Then count

how many seeds came from that one plant. Does this tie in with the number of that type of plant found on the school yard? What might have happened to the rest of the seeds?

18. FLAG POLE SHADOWS (4-6)

Extra materials needed: small sticks and ruler.

Discuss shadows with the group. Use the flagpole as an example. Beginning on the hour, as early as possible in the morning on a sunny day, (the custodian might help first thing in the morning) put a stake into the ground at the end of the shadow. (Use a timer in the classroom to help the children remember.) Have one child or a committee do it each hour. They should measure the difference between the end of the shadow and the bottom of the flagpole and record this on a tag. Tie the tag to the stick, it should have both the time and the distance on it. At the end of the day, gather up the tags. Use them to show ratio and time. Make a chart showing the times and distances. Suggest that the children try this at home with a telephone pole, laundry pole or a tree.

19. HOME QUESTIONS (3-6)

Give each child a tag with a discreption of a type of home. He must find that home on the school site and tie his tag to it. The group can then go to each type of home and discuss it. Examples: a home made by plant for an insect (gall), a home under the outer layer of a tree, a home hung on a man made building (wasp nest, a hidden home (under a rock, etc).

20. ROCK HUNT (4-6)

Give each student a tag with one descriptive phrase on it. Have them find a rock that fits that description and tie their tag to it. The group can then go to each tag and discuss it. All the tags on one type of rock should be put together and a chart made showing each type of rock and all of the descriptive phrases about it; i.e., rock with holes in it, a rock that looks like layers of thin material, a rock with many different colors in it, a rock with bits of minerals that catch the light, a rock with animal homes in it.

21. HOW MANY (4-6)

Different colored tags are needed for this activity.

Divide the class into several groups. Give each group tags of a certain color and a sample of one type of plant from the school site. The groups should then go out and tie one of their color tags to each plant of that type they can find (you may wish to limit them to the front yard of the school, or do one side at a time). The group should then meet and discuss the number of tags of each color. Why there might be more of one plant than another. More in front or back of school, etc.

22. FIND OUT THE AGE (4-6)

Equipment: tape measurer

Give each child or group of children a tag with a question: Find a twig that is ___ years old (When a leaf grows it leaves a scar on the twig. When the leaf falls off the

scar is left behind. After a few years, there are a few scars that go in rings around the twig. Count these rings or scars to find out the age of the twigs). Find out the age of an evergreen tree, or find an evergreen tree that is ___ years old (if there are several evergreen trees on the site). (Allow three years for the trunk and then count the spaces between the branches all the way to the top, each space represents a year.) If there are stumps available on the school site, use these to ask questions about the age of the tree. You might wish to bring in some slabs of different sizes to use in telling the age of a tree.

23. SOIL WORDS (4-6)

Give each child a tag with a word describing soil or something to do with soil on it. Have them find a spot or object that goes with the word. The group would then go to each tag and discuss it. Examples: Weathering, decaying material, humus, burrowing animal evidence, bedrock, top soil, clay, subsoil, erosion.

24. CIRCLE TREASURE HUNT (4-6)

Materials needed: string or wire, newspaper, garden trowel for each group, colored tags, small vials with top.

The class should be divided into groups. Each group should be provided with string or wire to form a circle, a trowel, and newspaper. An area should be selected near the edge of the school yard or in a nearby vacant lot. Each group should have a different "type" of area-

(near fence, in yard, open area, etc.) The groups would make a circle with the string or wire. (About 3 feet in diameter) Carefully using the trowel, they should dig into the ground and remove the material from about 3 inches deep to the newspapers. The material should then be sorted as to type and tied with a different colored tag; i.e., plants, small rocks (in vials), insects or animals (in vials), types of soil (in vials). Types and numbers of plants can be counted and the different types of areas compared. A chart can be made showing the differences, back in the classroom.

25. FROM WHERE DOES IT COME (K-3)

Each child should be given a tag with a picture of something we use at home and school. They would take their tag and tie it to the type of natural object that is the source of the picture. Explain that it doesn't have to be the ACTUAL plant or object, but the same type of part or thing; i.e., tire, tied to a tree; lumber, tied to a tree; paper, house of brick; peas or some seed food; fruit; etc.

LANGUAGE ARTS

There are many activities in the out of doors that can offer valuable and interesting knowledge in the area of language arts. In the less formal atmosphere, a child is more likely to take part in activities involving language. Vocabulary building and such areas as letter sounds, rhyming words, vowels and ending sounds are all possible learnings with the baggage tags. Again, there is the opportunity to allow for individual differences in the activities. There are many variations in the suggested activities described below and depending on the grade level of your class; ideas can be suggested by your students also.

1. BEGINNING SOUNDS (K-3)

Each student is given a tag with a letter on it. He must find something in the school yard that starts with that letter. After all the tags are put out, the class should go as a group to each tag, have the student who put it there tell what it is and why he put it there. This can allow for discussion, such as, what other objects start with the same sound.

2. BEGINNING SOUNDS WITH PICTURES (K-3)

Each student is given a tag with a picture on it. He must tie the tag to an object that starts with the same letter as the picture on the tag. This carries the above activity a little farther. The two activities could be combined with the better

students getting the cards with the pictures on them, and the slower students those with just the letters.

3. ENDING SOUNDS - RHYMNING WORDS (2-5)

The same activity can be done using tags with words or pictures on them. These tags would be tied on objects rhyming with the word or picture on the tag. This could also be done with ending sounds or endings (ant, ing, etc.)

4. VOWELS (2-6)

The student tag would have a vowel such as a short E or a combination of vowels (not necessarily in order) such as A E O (flag-pole), I E A (sidewalk).

5. MATCH BEGINNING WITH END (or vice-versa)

(grade 3-6)

The student would have a tag with either the first few letters or the last few letters on it. He would have to match the tag with the correct object (i.e.; tag with ee, tree; ck with rock).

6. ADJECTIVES (4-6)

Each student would have a tag with a descriptive word on it. He must find an object that fits that discription and tie the tag to it. A variation might be to not only tie it to the object but to have a synonym for that word.

7. ABC HIKE

Give each child a tag with a letter on

it. With the younger children you may wish to leave out the harder letters. Take a walk around the school site. As a child sees something that begins with the letter he is holding, he ties the tag to that object.

This game can allow for the poorer students by making sure these children have a letter that will be easy for them.

This same idea can be used for ending letters, vowels or rhyming words; depending on the age of the student.

The baggage tags can be used for individual activity by merely handing out the lettered tags to the children and letting them find the object. If this method is used, it is important to then go as a group to each tag, have the child who placed it tell what the letter is and why he placed it there.

8. MATCHING TAGS.

With kindergarten, early first or primary EMR children the lettered tags can be used in a matching game. This can first be done by putting tags with the beginning letter on objects on the school yard. Each child can then be given a tag with a matching letter. In a group, or individually, the student(s) can find a matching letter and tie his tag beside it.

This can be made a little more difficult by giving either the capital letter or the small letter to the child and having them match the other to his tag. As the child learns cursive writing, this can be used to match letters.

9. MISSING WORD STORY (3-6)

Material needed: Work sheet, story with missing blanks.

Either a group of older students or the teacher can write a simple nature story. In the story are missing nouns or adjectives. A tag for each missing word is tied on the object it describes. One or two extra words can be included for an added puzzle. Each child is given a sheet with the story with its missing words. He must locate the correct word and put it in the blanks. The children should understand they do not have to find the words in order; but should find a tag, read the word, read the story and decide where the word should go. If you have some slower students, you may wish to have two children work together, putting a slow child with one who is a stronger reader. After a certain length of time, assemble the children and read the story together. They can then see which words were the extra ones.

10. CROSS WORD PUZZLE WORD HUNT (4-6)

This activity is simular to the one above except that a crossword puzzle is given each student. The clues are at the bottom of the puzzle but the correct words are also on tags tied, as near as possible, to the correct item. This is a good way to introduce cross-word puzzles as it gives the students both the clues and the correct answers.

11. PICTURE-SOUND TAGS (K-3)

Each child is given a tag with a beginning or ending letter on it and a square drawn on the tag. He must tie the tag to an object

beginning or ending with that sound AND draw another object beginning or ending with that sound in the square on the tag. This activity can be made more difficult by having an older student tie the object to something beginning with the letter sound and draw in the square an object ending with that same sound.

12. TAG STORY (4-6)

Materials: Clip board and paper for each group.

This activity should be done in groups. It can be done with the tags reading just adjectives and nouns or with all parts of speech. Four main areas of study should be pointed out (or how many groups there are); i.e., tree, birds, animals, flowers, insects, rocks, etc. Each child has a tag with a word on it. The tag should be on the area they would describe. Each child should try to find other students with tags that also fit the object. The group should then get the clipboard with the paper from the teacher or leader and write out the story about their object, using the words on the tag. They could either put in the adverbs and other small words or have them on a tag. If all the words needed in the story were put on tags this would mean groups trying to exchange with each other to get such words as THE, etc. The activity could be first done with only the most important adjectives, nouns and verbs being on the tags and then done a second time with all the needed words. The groups should then get together and read the stories. Discussion could be done on what words from other groups could have been used with other stories.

13. TAG POEM (4-6) Paper and clipboard.

This activity is similar to the TAG STORY but the groups would write either a Haiku or Cinquain poem. This activity might take place out of doors after the students have had a chance to write this type of poem inside the classroom. The tags would lean heavily on adjectives and would encourage the students to not use *the, and,* etc., but to concentrate on *picture* words and the beauty of the object.

14. VOCABULARY GROWTH (3-6)

This activity can be done in conjunction with the science program. As new words are learned in science, a tag can be made. When there are enough tags for the class, each child should be given one and asked to tie it to the subject or general area where it would be applied. The group would then discuss each word and find out if it could also be put in another place. Examples: Chrysalis-tied near a cacoon or where it could be found. Hibernation-near a spot where an insect or animal might go for the winter. Antenna-near an ant hill or where an insect is or might be.

15. QUIZ (4-6)

This activity is done with information clues on the tags. Examples: This animal is said to tell us about weather forecasting, it hibernates, it eats plants. Put this tag where it might make a home. (groundhog)

SOCIAL STUDIES

Using the out of doors in Social Studies can be a great help in trying to teach students respect for work-in both man and nature, appreciation and understanding for our heritage, comparison of natural and man made environments, land forms in miniature, and concrete experiences in map understandings.

The activities below are put in the framework of the use of the baggage tags as a motivating factor but there are many activities that can be done without the use of any materials or equipment.

1. MAN MADE vs. NATURAL (3-6) This is similar to the Changed-Natural game.

Each student is given a tag with either man-made or natural on it. He must tag some building material on the school yard with his tag. The group will then check each tag and find out why it was left natural or changed (i.e., brick-baked clay, so it would not "melt").

2. USES OF NATURAL MATERIALS BY PIONEERS AND INDIANS (3-6)

Each child is given a tag with a use for materials on it (tool handles, firewood, weapons, dye, food, drink, building, etc.). He will then tag the object on the school site that was used by the pioneers or Indians for this purpose. The group should then go around to each tag and have the student explain why he put the tag there. This

should be a follow up to a unit on pioneers and Indians. The materials should be gathered and used if at all possible.

3. HOMES (K-6)

Each child would be given a tag with the name of an animal, bird or insect on it. He must then tag the home of the animal found on the school site.

4. LAND FORMS (4-6)

The school site should be viewed as a miniature map of land forms. Each child is given a tag with the name of a land-form on it (hill, butte, gully, etc.). He should find a miniature land form on the school site and tag it. The group should then explore each area and discuss the land form.

5. MAP SYMBOLS (4-6)

Each child should be given a tag with a map symbol on it. He should then find an area on the school yard that would be a miniature of the symbol. (Grassland, water, swamp, road, trail) The group should then discuss each area.

6. COMMUNITY JOBS (K-6)

Each student would have a tag with the name of a man, community job, or service.

They would try to find a spot on the school yard where the natural counterpart might be. Example: foodstore-berries, plants, etc.; Teacher-near home of animal where parents would be; Garbage man-near rotting log; Masons-mud daubers; Paper

makers-wasps; Tent-makers - Tent Caterpillar; Musicians-katydids; Utility workers-lightening bug or bark where insects were cleaning up; Guard-near ant hill where guard ants stay around entrance.

7. HELP WANTED ADVERTISEMENTS FOR WORK (4-6)

After the class has discussed community workers and know somehting about animals, they can be given a tag with a Help Wanted Ad on it. They should then put the tag where they think that "animal" might live. Example: Good Tunnel man needed for digging, night work-on mole or shrew hole. Nurse to take care of small children in home, must be able to handle several at a time-ant hill. Experienced Banker, references as to thrift-squirrel or chipmonk. Travel companion needed for southern trip-bird.

8. INVENTORY OF NATURAL RESOURCES (4-6)

Each child should be given a tag with a use for natural materials on it. He should then tie that tag to something found on the school site that could be used to make that object. A general approach would have to be made; i.e., ANY type of tree for paper, clay for brick, stone for buildings.

9. MAN'S INVENTIONS vs. NATURE'S DEVICES (4-6)

Each student would be given a tag with an invention of man on it. He would have to find something in nature that would parallel that invention. If several children have the same invention, they must find something different from each other. Example: Fan (put where bees might live-using wings). If the student puts it near

something, he must be able to explain why he put it there. Helicopter-maple wing; Parachute-dandilion seed; Packing method (like sardines)-seed pods (milkweed); Needles-thorns; Sticky tape-spider web; Shovels-frontfeet of mole, cricket.

10. TIME LINE (4-6)

Taking the date of the building of the school as the time line, give each child a tag with the words *before building* or *after building* on it. He must find something on the school site that has that time line. The group would then go to each tag and discuss why the tag was put there.

MATH

To many children, math is abstract learning and has very little relationship to everyday living. Using the out of doors to teach many concepts in math can help students understand many processes they have missed in the classroom. It can reinforce learned facts and provide direct experiences in measurement, estimating and problem solving. With the introduction of the metric system coming very soon the schools must provide experiences that will familiarize the students with the new system. The out of doors provides an interesting way to begin this learning. The following activities are, of course, tied to the use of the baggage tag, but there are many activities that can be done without any equipment. Many children who have trouble in the classroom with math concepts are able to better grasp the ideas through out of doors experiences.

1. HOW LONG? HOW SHORT? (4-6)
   Materials: tape measure, ruler, yardstick

   Each student is given a tag with a measurement on it. He must then find something on the schoolyard that is the size given and tie the tag to it (it can be with 1/4 or 1/2 inch).

2. HOW BIG AROUND? (4-6)
   Materials: tape measure

   The student is given a tag with a size on it. He will try to find a tree with a circumference that size (to 1/2 inch).

3. MATH WORDS (K-3)

Each child is given a tag with a direction on it. Example: Find something taller than the school building. Find something bigger around than the mailbox post. Find something that is the tallest thing on the school yard. The student would then follow the directions. The group should then go to each tag and discuss it.

4. ESTIMATING (4-6)

Materials: Tape, ruler or yardstick.

Each student is given a tag with two points on it. Example: From bottom of telephone pole to top of pole. From door of school to flagpole. From top of school to ground. From one end of sidewalk to the other end (in front of school). From one side of driveway to the other side.

The student should first guess or estimate the distance and mark it on the tag. He should then, using one of several methods, find out the correct answer and mark it under his estimation. The group should then go to each tag and discuss both measurements. The group can estimate each distance and then find how close they came to the correct answer. The height correct answers can be found by several methods. (1) Height of person method is the easiest for most students and is quite accurate. Line up a pencil with a person standing next to a tree so that the top of the pencil is in line with his head and the bottom of the pencil is in line with his

feet. Now see how many pencil lengths it takes to reach the top of the tree. Multiply that number with the height of the person. (There are several other methods listed in several books, "Tips and Tricks in Outdoor Education"-Swan, Curriculum Enrichment Out of Doors, Trees - Macbean)

If you want to reuse the tags, laminate them and give each child a grease pencil for writing.

5. SHAPES (K-2)

Each student is given a tag with a shape drawn on it. He will try to find something out of doors that is the same shape. Since several children will have the same shape on their card, encourage them to try to find as many different things as possible. The group should then go to each tag and discuss the shape.

6. METRIC MEASURMENT (4-6)

Materials needed: rulers converted to metric, or metric measurers.

Each student is given a tag with a metric measurement on it. He must tag it to something that size and then write the English measurement under it. This can be done with all areas of metric measurement by providing liquid containers also.

The tags can be made reuseable by laminating them and using grease pencils

for writing. This activity can be reversed by having the English measurement on the tag and having the student write the metric measurement. It could be done this way first and then the second time reverse the measurements.

7. COMPASS TRAIL "A" (5-6)

Equipment needed: Compass for each student, small sticks (4 for each student)

This activity would be a "final" or ending activity for the study of the compass. The Silva compass is the best one to use with students because of the rotating base. Each student is given three tags, each with a compass reading on it, and distance in feet.

He puts one of the sticks into the ground and after setting the reading on the compass, ties the tag to the first stick. He then follows the course the correct number of feet. He puts the next stick in the ground at that spot and sets the compass for one of the two remaining readings on the tags. He ties this tag to the stick and follows the second course. He then puts the other tag in the ground and follows the reading, putting the last stick in at the finish.

The challanging part is for the student to find a course that will not run him into a building, street or obstacle. He may have to change tags and directions as he goes.

8. COMPASS TRAIL "B" (compasses and sticks)

This activity can be set up by students or the teacher beforehand. A number of sticks are set in a line, (20) east-west and numbered.

On each stick there is a tag with a compass reading and distance in feet printed on it. Out in the area in front of the sticks are other sticks, each with directions on a tag tied to it. There are two sticks for each stick in the line. If the trail is done correctly, the student will end up back at his first stake.

The student is told a number and follows the directions on the tag on that stake. He should find a stake when he finishes that direction, but if not he goes to the nearest stake to him. He then does the same for the next stake. This "should" bring him back near the first stake. If he has gone to the wrong stake out in the field he may end up anywhere. This activity is fun for both the students that set up the game and the students taking it. A score can be assigned depending on how many stakes he missed from his starting stake.

9. TREASURE HUNT (K-1)

Each student is given a tag with directions on it. If the student can not read, the tag can have pictures on it. Example: Find 6 sticks of different sizes - or pictures of 6 sticks, not the same size. Find a big rock, a small rock, a white rock. Find 8 acorn caps (or pictures). The directions can also contain a problem, either in words or pictures. EX: Find 9 sticks, leave 4 where you found them, bring the others back.

10. SIMPLE MEASUREMENT (1-3)

Equipment: rulers, yardsticks, tape

Each student is given a tag with something to be measured on it; i.e., door of school, width of sidewalk, height of mail-box, height of step, size of window.

The student would measure the object, write the size on his tag and tie it to the object. The group would then visit each tag and find out its size. This activity can allow for better or slower students by the difficulty of the object to be measured.